

PROCEEDING

3rd INTERNATIONAL SYMPOSIUM OF
PUBLIC HEALTH

2018

“Challenging Public Health Roles
Towards Global Health Issues”



DOCTORAL PROGRAM
STUDY PROGRAM OF PUBLIC HEALTH
FACULTY OF PUBLIC HEALTH
UNIVERSITAS AIRLANGGA

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The 3rd International Symposium of Public Health (The 3rd ISoPH)

“Challenging Public Health Roles Towards Global Health Issues”

Surabaya, 31st Oktober – 1st November 2018



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FOREWORD

The 3rd International Symposium of Public Health (3rd ISOPH), was held at Wyndham Hotel, Surabaya, East Java, Indonesia from 31st October-1st November 2018. More than three-hundred attendees from 5 countries gathered to discuss research and applications in public health roles. The papers contained in this *Proceedings* cover a wide range of topics including: nutrigenomics and public health: the paradigm shift to disease prevention, tobacco use and dependence, health financing and health insurance, the application of ICT in health care, emerging and re-emerging infectious diseases: threats to human health, maternal and child health, primary health care, mental health, nutrition-enhancing as strategic investment, occupational health, environment health, health politics and policy, non-communicable disease, communicable disease and tropical disease, emerging and re-emerging disease, health service management, community resilience and public health practice, disaster management. The members of 3rd ISoPH Review Committee reviewed 290 abstracts and selected 73 papers published in ISBN publication. Preparation of these proceedings would not be possible without the assistance of 3rd ISoPH scientific committee. Thank you to Prof. Dr. Mohammad Nasih, SE., Mt., Ak., CMA (Rector of Universitas Airlangga), Prof. Dr. Tri Martiana, dr., M.S. (Dean Faculty of Public Health), Dr. Nyoman Anita Damayanti, drg., MS. (Coordinator of Doctoral Programme in Public Health) and Purwaningsih, S.Kp., M.Kes (Chair of 3rd ISoPH Organizing Committee) for their guidance and encouragement.

3rd ISoPH Committee

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**WELCOME MESSAGE
THE CHAIR OF ORGANIZING COMMITTEE**

Assalamu'alaikum Warahmatullahi Wabarakatuh

On behalf of the all committee members, I would like to thank all speakers, all conference committee, all participants, Wyndham Hotel, our sponsorships, our donors and to everyone who had contributed in many ways to ensure the success of this conference and all of whom have worked tirelessly on this conference.

The Conference is organized by Doctoral Program of Public Health, Faculty of Public Health, Universitas Airlangga, in collaboration with Universitas Ciputra, Universitas Muhammadiyah Malang, Universitas Muhammadiyah Purwokerto, Institut Ilmu Kesehatan Bhakti Wiyata Kediri and Universitas Nahdlatul Ulama Surabaya, Universitas Pekalongan. The aim of this symposium is to disseminate knowledge, share it to the public and develop ideas for policy makers, from various levels in addressing programs to global health issues.

Purwaningsih
Chair of Organizing Committee

**THE COORDINATOR OF DOCTORAL PROGRAM IN PUBLIC HEALTH
FACULTY OF PUBLIC HEALTH
UNIVERSITAS AIRLANGGA**

Assalamu'alaikum Warahmatullahi Wabarakatuh

Dear Colleagues,

I would like to thank all participants, conference committee, Co-Host, sponsors and all speakers who give their contributions in the 3rd ISoPH:

1. Prof. H. Mohamad Nasir, Ph.D, Ak, Ministry of Research, Technology and Higher Education of the Republic of Indonesia
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3. Prof. Dr. dr. Fachmi Idris, M.Kes, Social Security Administrator for Health, or BPJS Kesehatan
4. Prof. dr. Ali Ghufroon Mukti, M.Sc., Ph.D., Directorate General of Resources for Science, Technology and Higher Education, Ministry of Research, Technology and Higher Education of the Republic of Indonesia
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6. Dr. Febi Dwirahmadi, SKM., M.Sc., Griffith University, Australia
7. Supawadee Thaewpia, RN., Ph.D, Boromarajonani College of Nursing Khon Kaen, Thailand
8. Widodo J. Pudjirahardjo, dr., M.S., M.PH., Dr.PH, Universitas Airlangga
9. Dr. Salmiah binti Md. Said, MD., M.Comm.Med, Department of Community Health, Faculty of Medicine & Health Sciences, Universiti Putra Malaysia

We applaud your contributions to public health. Appropriately themed "Challenging Public Health Roles Towards Global Health Issues", our conference will address some of global health most critical issues, including: nutrigenomics and public health: the paradigm shift to disease prevention, tobacco use and dependence, health financing and health insurance, the application of ICT in health care, emerging and re-emerging infectious diseases: threats to human health, maternal and child health, primary health care, mental health, nutrition-enhancing as strategic investment, occupational health, environment health, health politics and policy, non-communicable disease, communicable disease and tropical disease, emerging and re-emerging disease, health service management, community resilience and public health practice, disaster management.

Dr. Nyoman Anita Damayanti, drg., MS
Coordinator of Doctoral Program in Public Health
Faculty of Public Health
Universitas Airlangga

WELCOME MESSAGE

**DEAN OF FACULTY OF PUBLIC HEALTH
UNIVERSITAS AIRLANGGA**

Assalamu'alaikum Warahmatullahi Wabarakatuh

The 3rd ISOPH is the third international symposium which is held annually by the Faculty of Public Health to improve knowledge and skills about public health issues, gain network with other health professionals as well as increase the number of scientific publications for students, lecturers and health professionals.

With the theme of the Conference is "Challenging Public Health Roles Towards Global Health Issues", we are hoping that the conference will gather the highest possible level of global health issues which can benefit not only Indonesia nations but also International area with regards to health policies and laws, global health finance and a political commitment to make health a priority.

With our sincere gratitude to the all-conference committee as well as to the Co-Host and sponsors, we would like to say thank you for attending the conference.

Prof. Dr. Tri Martiana, dr., M.S.

Dean

Faculty of Public Health, Universitas Airlangga

THE DIFFERENCE OF ILLNESS FREQUENCY BETWEEN 2 YEAR BABIES WHO GET EXCLUSIVE BREASTFEEDING AND NOT GET THE EXCLUSIVE ONE

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ABSTRACT

Introduction: Exclusive breastfeeding is the most suitable nutrient for babies for 0-6 months. In reality, exclusive breastfeeding is still far from the expected target. Meanwhile, it was still found that many numbers of ill babies visit. This study aims to find out the illness frequency difference between the 2 year ill babies who got exclusive breastfeeding and babies who did not get exclusive breastfeeding. **Method:** This research was a retrospective analytical study. The population in this study was 2 year old babies in Wonokromo Health Center area which had 51 babies. The sample was taken by simple random sampling technique to 46 babies. The independent variable was breastfeeding, while the dependent variable was the illness frequency of 2 year ill babies in Wonokromo health center area. Data collection used questionnaire. To analyze the difference, it used the Mean Whitney Test with a significance level of 5%. **Results:** The result showed that the characteristic of respondents aged ≤ 20 years was 17.39%, 21-30 years was 60.87%, 31-40 years was 19.57%, and 41-50 years was 2.17%. Based on the educational background, those who had primary education were 8.69%, those who had junior high school education were 26.09%, those who had senior high school education were 60.87%, and those who had college education were 4.35%. While based on the employment, as a trader was 26.09%, as a housewife was 45.65%, as an entrepreneur 13.04%, as a government employee was 6.52%, as a private employee was 8.67%. Those who gave exclusive breastfeeding were 32.61%, those who did not give exclusive breastfeeding 67.39%. The average number of illness frequency of 2 year ill babies was 5 times. After being analyzed, it was obtained that $p = 0.030$ H_0 was rejected and H_1 was accepted. **Conclusion:** Based on the description above, it can be concluded that there is difference between the 2 year ill babies who got exclusive breastfeeding and babies who did not get exclusive breastfeeding. It means that exclusive breastfeeding can affect the illness frequency of baby. Therefore, it is recommended that breastfeeding mothers should give exclusive breastfeeding to their babies.

Keywords: *Exclusive breastfeeding, Illness Frequency*

Introduction

Infant Mortality Rate (IMR) in Indonesia is caused by several factors, such as premature birth, neonatal infection, low nutrition, congenital defect, low breastfeeding rate soon after childbirth/early initiation of breastfeeding, and low exclusive breastfeeding for the first 6 months of life. early initiation of breastfeeding and exclusive breastfeeding play important roles in decreasing the infant mortality rate in Indonesia so that the target set by Millennium Development Goals (MDGs) in 2015 can be achieved (Ginanjar, 2008).

Based on the preliminary survey on 20 children under five in Wonokromo Community Health Center, only 8 children received exclusive breastfeeding, whereas 12 children did not. In relation with morbidity rate in the last 1 month, among 8 children with exclusive breast milk, 5 children were healthy, 2 children were sick once, and 1 child was sick twice. Whilst, among 12

children without exclusive breast milk, 1 child was healthy, 6 children were sick once, 5 children were sick twice. The condition of sick children is affected by several factors, such as age, sex, hereditary, congenital defect, healthcare, sensitivity to diseases, sanitation, and environmental condition (Soetjningsih, 2007). Children who often get sick may experience problems with nutritional intake in which the nutrition they need is not fulfilled well because the appetite usually decreases during sickness. The nutritional intake may also get disturbed, for instance when they have diarrhea or vomiting. Another effect is low weight gain resulting in problems with growth and development. Therefore, sick children need the correct treatments to decrease the morbidity and mortality rate.

The government has done some efforts to decrease the mortality rate in children under five with Integrated Management of Childhood Illness (IMCI). IMCI was firstly introduced by WHO as a strategy to provide healthcare purposed to decrease the mortality and morbidity rate, as well as birth defect rate in babies and children under five in developing countries (Depkes RI, 2008). In addition, preventive efforts have been done early by promoting breastfeeding which is related indirectly with the health of babies and children under five. To increase the roles of breastfeeding, the breastfeeding promotion program, especially exclusive breastfeeding, should be prioritized because of its great effects on the nutritional and health status of children under five (Roesli, 2008).

Based on the phenomena described above, this study was conducted to investigate breastfeeding which probably affects the morbidity in children under five. This study was purposed to prove the difference of disease frequency in two-year-old children with exclusive breastfeeding and without exclusive breastfeeding.

Method

The method of this study was analytical survey to explore how and why the phenomena of health happen. It was purposed to analyze the difference of disease frequency in children aged 2 with and without exclusive breastfeeding. This study was designed to answer the research questions or examine the validity of hypothesis. In this study, the researcher used retrospective design.

This study involved the two-year-old children found in Wonokromo Community Health Center as the population in which the samples were chosen as the respondents by using simple random sampling technique. The data were collected using questionnaires. The statistical analysis was done by using Mann-Whitney Test. This study was conducted in Wonokromo Community Health Center in January until June 2018. The independent variable was breastfeeding; whereas the dependent variable was disease frequency in the sick children aged 2. To analyze the difference of disease frequency, Mann-Whitney Test with the significance level of 5% was used.

Results and Discussion

The results of this study conducted to 46 respondents showed that most of the mothers totaling 28 people (60.87%) were 21-30 years old. This is supported by the claim made by Hurlock (1998) in Nursalam and Pariani (2001) stating that growing older makes people think and act more rationally as resulted from the experiences and maturity of soul.

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Most of the respondents totaling 28 mothers (60.87%) graduated from senior high school so that they had an ability to correctly express the knowledge they have possessed. According to Nursalam and Pariani (2001), the higher the level of education possessed by an individual, the more easily they receive information. In other words, as the message receivers, they can prepare themselves to follow the process of communication.

Most of the respondents totaling 21 mothers (45.65%) were housewives who had more spare time than career women so that they could use their time to receive information independently. Based on the study conducted to 46 mothers, the results showed that only few of the two-year-old children totaling 15 children (32.61%) received exclusive breastfeeding; and the average disease frequency was 5 times. While the average disease frequency in children who did not receive exclusive breastfeeding was 6 times.

The result of normality test by using Kolmogorov-Smirnov test showed that the value of $p = 0.021$ ($p < 0.05$), and showed that the result of data distribution was non-normal. Therefore, non-parametric statistic test was done by using Mann-Whitney test. The result of the test showed that the value of $p = 0.030$ which meant that $p < 0.05$ concluding that there was a difference of disease frequency in two-year-old children with and without exclusive breastfeeding.

There are many factors affecting the breastfeeding behaviors, such as level of education, occupation, experience, psychological and environmental factors. The achievement target of exclusive breastfeeding was only 32.61% compared to 80% as expected. This result was possibly caused by some factors, namely parity, level of education, occupation, experiences, psychological and environmental factors. Breast milk can increase the immunity of children. Newborn babies receive immunoglobulin (body's immune substance) from their mothers through placenta. Yet, the level of immunity decreases rapidly soon after they are born. Babies produce their own body's immune substance sufficiently to provide protection at the age of 9-12 months.

A similar study was conducted by Wariyatun (2009) showing that the average (mean) of the duration of breastfeeding was 111.14 days, the mean of disease frequency of diarrhea was 2.74 times, and the mean of disease frequency of upper respiratory tract infection (URTI) was 2.77 times. The study concluded that there was a low correlation between the duration of breastfeeding and diarrhea and upper respiratory tract infection in babies aged 6 months. Whilst, this study showed the difference of disease frequency in children aged 2 with and without exclusive breastfeeding.

Conclusion

This study revealed that most of the mothers (97.83%) were adults; most of them (60.87%) graduated from senior high school; and most of them (45.65%) were housewives. Only few of the children (32.61%) received exclusive breastfeeding, whereas 67.39% did not. Disease frequency experienced by the children aged 2 was averagely 5 times in 1 year. In conclusion, there was a significant difference of disease frequency in two-year-old children with and without exclusive breastfeeding.

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